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24. The conductive fluoro-resin composition of claim 14, wherein the silver particles are reduced silver particles, electrolytic silver particles or atomized silver particles.

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25. The conductive fluoro-resin composition of claim 14, wherein the silver particles have a mean particle size of 0.1 to 10 μm .

REMARKS

The Amendments

The specification is amended to correct obvious minor informalities.

Claim 4, indicated in the Office Action to be allowable, if rewritten in independent form, is rewritten as such with the claims dependent thereon rewritten to depend upon the new claim.

Support for new dependent claims is found throughout the instant specification, for example, at page 4, lines 9-27; page 6, lines 25-29; page 7, lines 24-26; page 10, lines 25-36; page 11, lines 13-15; page 11, lines 22-28; and page 14, lines 33-34.

The amendments should not be interpreted as an acquiescence to any objection or rejection made in this application but are made only to clarify the invention and/or expedite the prosecution of this application. To the extent that the amendments avoid the prior art, competitors are warned that the amendments are not intended to and do not limit the scope of equivalents which may be asserted on subject matter outside the literal scope of any patented claims but not anticipated or rendered obvious by the prior art. Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application which has been canceled by any of the above amendments.

The Rejection under 35 U.S.C. §103

The rejection of claims 1-3 and 5-6 under 35 U.S.C. §103 as being obvious over Tarumi et al. (U.S. Patent No. 5,837,774) in view of Stoetzer (U.S. Patent No. 4,518,524) is respectfully traversed.

Tarumi discloses a curable fluoropolyether rubber composition containing (A) a fluoropolyether with alkenyl groups, (B) polytetrafluoroethylene, (C) an organohydrogenpolysiloxane and (D) a hydrosilylation catalyst; see col. 1, lines 45-61. There is no disclosure in the reference that the materials would be useful as conductive materials for

electronics applications or any other reason why one of ordinary skill in the art would have been motivated to modify the reference teachings to make the materials conductive. Particularly, there is no suggestion, whatsoever, in the reference that silver particles could or should be added to the Tarumi compositions. To the contrary, Tarumi discusses possible additives to its compositions at col. 9, lines 18-42, none of which include silver particles or similar conductive materials.

Stoetzer discloses conductive coating compositions for particular use in silk screening applications and for electromagnetic interference shielding coatings; see, e.g., col. 2, lines 6-10. The invention lies in the use of a particular refractory ferro alloy pigment used in the compositions together with silver particles. Stoetzer discloses that the binder resin used to carry the silver particles and ferro alloy pigment is not particularly important and lists acrylic, vinyl, urethane, alkyd, polyester, hydrocarbon, fluoroelastomer, cellulosic, epoxy and phenolic resins; see col. 3, lines 37-52. Polyester resins are preferred and are used in the examples. Stoetzer provides no teaching to one of ordinary skill in the art of a hydrosilylation curable conductive fluoro-resins composition containing silver particles.

It is alleged in the Office Action that it would have been obvious in view of the advantages disclosed by Stoetzer to incorporate the silver particles disclosed therein into the curable resin compositions of Tarumi. Applicants respectfully disagree.

There is nothing in the teachings of the art which suggests that one of ordinary skill in the art would have a desire to render the Tarumi compositions conductive by adding silver particles thereto. Tarumi certainly gives no indication of any desirability to render its compositions conductive. Furthermore, there is no suggestion from Stoetzer of a desirability to use a hydrosilylation curable composition, such as disclosed by Tarumi, as the binder resin for its coatings. To the contrary, Stoetzer provides a clear suggestion to use other types of binder resin materials, such as polyesters. In order to establish obviousness under 35 U.S.C. §103, the mere fact that the prior art could be modified to arrive at the claimed invention is insufficient. The prior art must suggest to one of ordinary skill in the art the desirability of the necessary modification. See In re Laskowski, 10 U.S.P.Q.2d 1397 (Fed. Cir. 1989); and, In re Geiger, 2 U.S.P.Q.2d 1276 (Fed. Cir. 1987). It is respectfully submitted, for the reasons given above, that the prior art of record fails to suggest the desirability of combining the references in the manner necessary to arrive at the claimed invention and, thus, the prior art as a whole fails to establish obviousness of the claimed invention.

The distinct utilities of the materials which are the subject of the two reference inventions also directs one of ordinary skill in the art away from combining the teachings thereof. Tarumi provides no suggestion of any application requiring the conductive properties resulting in Stoetzer. Further, neither reference discloses use of its materials for the particular applications of the instant invention, i.e., die bonding of semiconductor devices and mounting of quartz crystal oscillators. These factors are further indicative of the failure of the prior art to teach or suggest the combination of applicants' invention.


Additionally, there is no suggestion from the art of any reasonable expectation that silver particles disclosed by Stoetzer would be compatible in the curable compositions of Tarumi. Note the disclosure in Stoetzer requiring that the particles be compatible in the binder; col. 3, lines 38-41. Thus, even if it might have been obvious to try using the silver particles of Stoetzer with various binder resins, there was no suggestion that the particular combination of the Tarumi resins and the silver particles would be successful.

As to new independent claim 14 and claims dependent thereon, it is pointed out that claim 14 is original dependent claim 4 rewritten in independent form. It was indicated in the Office Action that the subject matter of this claim would be allowable if so rewritten. In addition to the deficiencies of the prior art discussed above, the prior art certainly fails to suggest the use of silver particles surface treated with an organopolysiloxane or fluorinated polyether compound in a hydrosilylation curable conductive fluoro-resin composition. Although unnecessary in the absence of prima facie obviousness, it is further noted that the instant specification provides comparative examples showing the advantages obtained by using silver particles having a surface treatment as defined by the claims. Thus, the patentability of this subject matter is further established.

For all of the above reasons, it is respectfully submitted that the prior art considered as a whole fails to render the claimed invention obvious to one of ordinary skill in the art since there is no suggestion to motivation to combine the reference teachings in a manner suggestive of applicants' invention. Accordingly, the rejection under 35 U.S.C. §103 should be withdrawn.

It is submitted that the claims are in condition for allowance and early notification thereof is earnestly solicited. If issues remain unresolved, the examiner is kindly invited to contact the undersigned by telephone to discuss matters which may further the prosecution of this application or facilitate the allowability of some or all of the claims herein.

Respectfully submitted,

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